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EDITORIALLY SPEAKING

THE EUROPEAN IDEA

Sir Neils Bukh and his Danish gymnasts have provided several American audiences with impressive and entertaining demonstrations of physical prowess. There is no doubt that these "boys" and "girls" — one "boy" is getting bald — have been thoroughly trained, that they go through their set exercises very perfectly, and that they show considerable power of endurance.

But so do the animals in a circus and so do soldiers in the army. The question is how far this formal gymnastic training affects the life and conduct of the individual apart from the set routine of class work under orders. Once these graduates are out of school and engaged in various occupations, will they keep up regular exercise of the elaborate and extremely energetic sort they have been drilled in? Hardly. Life is too short and man too lazy. If not, will they be greatly better off than those who merely walk about in the usual fashion? Hardly again. The fact is, as Walter Camp has recently pointed out, that only very simple exercises are necessary to health. The professional gymnast alone needs rigorous muscle-building.

But Sir Neils himself gives the clue when he says, as recently reported, that if all Americans would undergo physical training according to his system the nation would be "invulnerable." That's it, the jungle idea. Poor old Europe is still in the tribal state, each racial group ready to pounce or be pounced upon, regarding the weaker as the legitimate prey of the stronger, predatory by instinct and still predatory in practice. Even Lloyd George was apparently unable to realize the possibility of an unguarded boundary line till he crossed it in person.

The European idea is still, it seems, to train rather than to educate. Let the masses do as they are told, subject themselves to a severe regimen, that they may be ready to march where the State shall command. Self-control, self-direction, voluntary coöperation in the pursuit of common purposes, on the Continent at least, has as yet not established itself. America will continue to trust in education, however tolerant we may be of the tendency of our adopted citizens to cling to ideals

instilled through generations in their native lands, which unvisited seem very dear in retrospect.

A JOURNAL AT PEABODY

The progress which the South is making in the matter of education is reflected in the publication at the George Peabody College for Teachers of a bimonthly magazine called *Peabody Journal of Education*, the first number of which appeared in July. The range of the new periodical is apparently to be as wide as the interests of education itself. The first number contained articles on Supervision, Geography, Art, Educational Measurements, Latin, High School Graduation, and Finance. The September number continues along the same lines, with special emphasis on reading. There is undoubtedly a place for an educational magazine by means of which the workers of the South can find adequate expression, and by means of which also the schools of the South can be assisted in their development. There is, however, nothing sectional in the new organ. So far as the subject matter goes, it might have been published in California or Pennsylvania.

The editor, Professor Charles S. Pendleton, is a well-known student and teacher of English and will undoubtedly see to it that the publication has the attention necessary to make it mechanically acceptable. THE JOURNAL OF EDUCATIONAL METHOD welcomes the new colleague and wishes it all success.

THE SUPERVISOR AT WORK—I[1]

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Today the teacher is challenging the supervisor who observes her work to give her suggestions and helps. She does not often wait to be called by the supervisor, but comes of her own accord asking for helpful leadership.

This has stimulated supervisors to a new conception of their responsibilities. They realize that the complete recitation is the smallest unit which can be used as a safe basis for constructive analysis and criticism. They realize also that the average teacher has a reason for what she has done, and that a change of method on her part means that she must "be shown" wherein her procedure failed to harmonize with accepted "laws of learning" and wherein lies the advantage of the plan proposed by the supervisor. Mere prejudice for or against a device is not sufficient. Each "pet scheme" must persist or perish because of its usefulness in the learning process. The supervisor, to be effective, must be able to diagnose each recitation observed, to decide on the far-reaching strong and weak features, and then use these in a conference

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with the teacher to help her to improve her technique. This is true supervision.

This skill on the part of the supervisor is the result of thorough study of educational psychology, of the technique of teaching, and of practice in analysis of recitations under skilled leadership. To provide some of this training, where actual lessons are not possible, complete reproductions of classroom recitations have been secured. These have been used instead of demonstration classes for the purpose of analysis, evaluation, and the formulation of constructive suggestions to the teacher.

In order to discover how "other supervisors" would treat these lesson units, they were submitted to several classes of experienced supervisors as indicated. The field data presented in Set B-1 was submitted to forty-two persons interested in elementary school supervision. Some of these were field supervisors in a state department of public instruction. In this group, also, were included supervising teachers, city grade supervisors, and graduate students in university classes in elementary supervision.

They were asked to assume that they had observed the lesson described, to check it on the points indicated in the accompanying score sheet, using descriptive words to give a brief evaluation of the procedures, and to formulate what they would say to the teacher to help her to improve. They attacked the task seriously and their results should be fairly typical of the kind of classroom supervision which teachers are receiving the country over.

SET B-1

Field Data for Analysis of Teaching Technique

ORAL AND SILENT READING — GRADE III-B

1. Kind of School: City grade in a community above the average in culture.
2. Teacher: High school graduate, has taken county examination and attended institutes and one university summer session. No other professional training except that gained by several years' experience of a varied nature and through professional reading. Energetic, fair insight into modern standards of teaching. Would be considered an exceptionally stimulating teacher from all viewpoints.
3. Learning Conditions: Typical grade room, morning period. Room comfortable as to heat and light. Slate blackboards; writing upon them well placed, easily seen. Seats non-adjustable but well suited to children. Discipline natural, coöperative, and generally favorable to learning.
4. Class: A review lesson in reading given for the purpose of ascertaining whether or not the majority of class had mastered the selection and especially to give needed individual help to a group of pupils who had been absent when the lesson had been studied earlier in the year.
5. Children: None below normal. About 25 per cent are somewhat above normal. Thirty-five pupils in all, of which the following are to receive special help:

Roderick	age 7
Robert	" 8
Catherine	" 8
George	" 7
Willard	" 7

6. Previous Work and Day's Assignment: About two months previous to the lesson the children had read this selection orally, having had the usual phrase preparation. They are now about to complete the work of the III-B Grade, and have read both orally and silently several other third readers. No recent directed work had been done on the selection for the day until the lesson began. However, the books were in the children's desks.

7. Materials Used: New Elson Book III, "Why the Rabbit's Tail is Short," pages 18–20. The following phrases written on the blackboard:
   how it happened
   old alligator
   playing a trick
   out upon their backs
   and counted them
   made them into a lion
   a hundred alligators
   hopped upon the alligator bridge
   caught the end
   always been short
8. The Lesson: The children looked up passsively as the teacher stepped before them. They did not "sit up in order," but sat informally as they might were there no teacher in the room. They were orderly, but not particularly eager in their attitude. To meet this situation the teacher said: "Everyone may stand." (Prompt response.) "Up on your toes." (Satisfactory response.) "Stretch!" (Response.) "Be seated." (Children sat up in good position ready for work.)

Teacher: Now, boys and girls, you may take your readers and open to page 18. (Prompt response; readers open at once.) I should like to have everyone read this through as rapidly as you can. Roderick, Robert, Catherine, George, and Willard may come up here to the board with me, please. Bring your books. (Children pass to the board and others begin work in a business-like way.) Study these phrases, please (pointing to the first one). Are there any words that you do not know? (Robert pointed to *alligator* in the second phrase.) (The teacher divided it into syllables by vertical lines and with her hand covered all but the first syllable and asked Robert to pronounce *al.* The usual process of helping a child to unlock a word was followed successfully and Robert soon pronounced *alligator.*) What is an alligator?

Roderick: It is a long flat thing, with a tail, that lives in the water. (Illustrated with gestures.)

Teacher: Do we see them around here?

Catherine: No, only in the park.

Teacher: Read the next phrase. (The children needed help in unlocking five words in the entire phrase drill. They were in each case required to coöperate in pronouncing separate syllables and putting them together to form the word. All of the children worked practically all of the time. The phrases were read as wholes as soon as the individual words were mastered. A few phrases that had given trouble were read twice.)

(This exercise required eight minutes, and these children were then asked to go in a group to seats in the back of the room; then the teacher gave them the following directions.)

Now, look at the first paragraph. See who can read it well. (She now turned to the children who had been reading silently and who had in several cases finished the work and had been unoccupied for at least three minutes.)

Now, you children may take the notebook we used this morning and I want you to write three good questions. Maybe I'll let you ask your questions by and by. Be sure to use the page next to the one we wrote on yesterday. (Teacher then went to back of room where the special group were seated.) What is the name of our story? (Group responded.) Who is ready to read? Robert. (Robert read but hesitated on *happened.*) Look at it again. I am sure you know it. Robert succeeded. After he had finished his reading he remained standing while the teacher asked him questions on what he had read.) What did the rabbit do?

Robert: He sat by a swamp.

Teacher: What did he want to do?

Robert: He wanted to cross the swamp but could not swim.

Teacher: Did he cross the swamp? (Roderick volunteered to read, but hesitated on several words and received help.) Tell us that again. (Roderick read with fair success the third paragraph of the story.) Now you may all read to yourselves and finish the story. (The teacher now walked up and down the aisles and inspected without comment the questions written by the other children. She returned to the group.)

Who is ready to read the paragraph he likes the best? (George read the paragraph beginning, "How foolish you are!" and finished page. Catherine read the material on page 20.) George, why did you read more than Catherine did?

George: Because I liked the whole thing.

Teacher: Children, put your work aside for recess.

9. Comments: The entire time occupied was twenty minutes. The teacher planned to correct the notebooks and thus obtain a check on the work the children had done at their seats, several of whom had finished long before the group exercise was completed. She stated that the final work on the selection would be the reading of favorite paragraphs by all of the class for establishing standards in oral reading. She did not plan to make further reference to the questions prepared by the children, several of whom had been clever enough to turn to the back of the book and copy the questions there provided instead of making up their own questions, as the teacher suggested.

The following evaluation sheet was used in analyzing the field data:

(Check or insert proper descriptive word. Summarize.)

A. Analysis of Recitation
  I. Physical Conditions for Learning
    (a) Light
    (b) Temperature
    (c) Seating
    (d) Working tools
    (e) Pupils
  II. Immediate Conditions for Learning
    (a) New material
      1. Study recitation
      2. Problems to be solved
      3. Project
      4. Questions to be answered
    (b) Material previously studied
      1. Testing for mastery of textual material
      2. Practice or drill
B. Evaluation of Procedure
  I. The material and tools (Teacher)
    (a) Method used
    (b) Accuracy of manipulation of tools
    (c) Organization of material
    (d) Motivation
    (e) Fertility of suggestion
    (f) Quality of English used
  II. Accomplishment (Pupil)
    (a) Interest shown
    (b) Initiative displayed
    (c) Organization of materials
    (d) Mastery of assignment
    (e) Quality of English used
C. Summary (Here give a brief evaluation of the recitation. Was purpose of teacher realized?)
D. Remedial suggestions which you as a supervisor would make to this teacher. (Use the other side, if necessary.)

The material submitted by these supervisors was carefully studied and classified as far as possible with the following results:

A. Analysis of Recitation.

I. Physical Conditions for Learning.

There was unanimity of opinion with regard to the physical conditions for learning. All agreed that the light, temperature, seating, working tools were satisfactory and that the pupils were normal or superior.

II. The Immediate Conditions for Learning

The material was classified as a "study recitation" or as material previously studied in which the purpose was testing for mastery of textual material; or practice or drill. Two persons judged this to be a project lesson under the caption of new material. One said that it was new material for five pupils, but old material for the rest. Several classified it as a study recitation for five pupils and drill material for thirty. The majority of those evaluating the material attempted to classify it by using such symbols as *Poor*, *Fair*,

Good. Relatively few checked the type of material presented.

B. Evaluation of Procedure.

In evaluating the methods used by the teacher, three said they were poor, three fair, two good; twenty-six stated that the system of distinguishing between groups was good, but the procedure in handling the groups was poor; one stated that it was good as far as it went; another used the term "dictatorial" in describing the method; still another said, "No method is used except in pronunciation."

Under "Accuracy and Manipulation of Tools," four indicated "none"; thirteen, poor; five, fair; seven, good.

Under "Organization of Material," four said that no organization was evident; sixteen stated that the organization was "poor"; six called it "fair"; two "good" and fifteen, while commending the selection of difficult phrases, said that this was inadequate.

"Motivation" was scored heavily by all the supervisors. Twenty-six described motivation as "of the lowest type," "for love or fear of the teacher," "inferior," or "lacking." Twelve called it "poor," and but one person believed it to be satisfactory.

"Fertility of Suggestion" was given as "lacking," "bare," "sterile," in the judgment of twenty-four observers; eleven rated it as "poor," and one found it satisfactory.

The quality of English used by the teacher was considered "fair" by most of the supervisors, while that used by the pupils was rated as good for their age and grade.

"Interest Shown by the Pupils" was rated from "lacking" to "good." The most common expression was that interest was at a "low ebb" or "passive." Thirty people stated that the initiative of the pupils was "misdirected" because they "copied" or "looked in the book for questions." The opinion was almost unanimous that no evidence was given of organization of material and that the assignment was "lacking," "undetermined," "not checked up."

C. Summary of Evaluation of Procedure.

The following statements give a symposium of the teacher's purpose or aim:

There is in general a lack of a well-defined purpose or aim. That which appears is vague, not clearly thought out, realized in part with the weak group, but not at all with the large group, because the pupils are given an opportunity to cheat, the tools are inexpertly used, and no use is made of points gained.

The teacher has not planned her work carefully. This is evidenced by her inexpert questioning.

Lack of proper organization is pointed out as an outstanding weakness of this recitation. "Too much time is devoted to the small group" and "the majority of the class is left to solve its problems unaided." Their time was wasted, for the teacher had no way of checking the work accomplished.

Many of the supervisors commented on the lack of interest shown by the class due in large part to the fact that the material was known to them, had been mastered before, the outcome was not worth while, and there was a lack of motivation except that aroused either by love or fear of the teacher. No

opportunity was provided for an evaluation of the subject matter.

Bad habits were promoted for the large group in that there was no specific training in correct habits of study; the children learned to cheat and to simulate obedience outwardly.

Little or no initiative was shown by the pupils except that, without direction, they made use of the questions in the back of the book. What initiative was present was entirely misdirected.

In commenting upon the review work the supervisors commend the teacher for recognizing the need for word study and for varying the review to meet the needs of two differing groups. It is the consensus of those evaluating the lesson that the phrase drill was not effective because of poor technique on the part of the teacher. The small group did not master their phrases and pupils of superior ability were not provided for.

Among miscellaneous comments are the following:

Directions did not stimulate reflective thought.
She is after subject matter, not power or skill.
Children did not know what the goal was.
Teacher placed all emphasis on primary learning.
No place for evaluation of subject matter.
No insight into mental situations.
Need of physical exercise indicates that there was no anticipancy and pleasurable expectancy.

D. Remedial Suggestions.

Each one who evaluated this recitation was asked to indicate the suggestions which he as a supervisor would make to the teacher of this class. About one hundred different suggestions have been listed and classified.

The first group relates to the phases of the work which are to be commended. It includes such statements as these:

The division of the class into groups was good.
The teacher showed an understanding of children's nature by not hurrying them.
Skillful work with the small group.
Skill in finding out what phrases pupils did not know.
Phrase drill good as to pronunciation.
Short physical training exercise, good.
Attempts towards effectively reviewing lesson, good.
Method of securing motivated reading with small group was sound.

The weak points to which the attention of the teacher would be called center around the work of the large group.

1. Large group were unoccupied during the phrase drill.
2. No challenge was presented to the large group since questions were in the back of the book.
3. A few of the large group cheated.
4. No relation between assignment of the large group and the aim.
5. The children did not believe that the questions to be answered were of much importance.
6. No testing of the large group.
7. Large group did not enjoy the work.
8. The assignment was indefinite.

The actual remedial suggestions which these supervisors would offer to the teacher are presented below. They cover a variety of topics, many of which do not permit classification.

1. The assignment.
   a. Give motivated assignment.
   b. Make assignments of varying difficulty to the groups.
   c. The assignment should be in the form of specific directions or questions placed upon the blackboard.
   d. Can you think of a better assignment?
2. The teacher's planning of her work.

a. Plan class work and seat work carefully before coming to school.
b. Plan for developing the child's initiative.
c. Develop plan of having pupils give one question to a paragraph which may be answered by one sentence, these sentences to be used as an outline of the story.
d. The teacher should plan her work in advance with definite goals previously set to be achieved.
e. Have a plan and follow it. (Entire comment of one supervisor.)
f. How far ahead is the work planned?

3. The materials.
   a. More interesting material should have been used.
   b. A new selection should have been used.
4. Principles of good teaching which should be observed as suggested.
   a. Whenever we engage in group work, each child should have a full quota of work.
   b. Every lesson should contain one or two opportunities for the superior pupils.
   c. Pupils should be taught some way of evaluating their own accomplishments.
   d. Require only such work as you have time to examine, criticise, approve.
   e. The teacher should have a very definite purpose which should include all pupils.
   f. Children should be permitted to engage freely in the discussion of the lesson.
   g. Definite standards of accomplishment should be set up.
   h. Teacher should show the pupils her appreciation of their effort.
5. Devices and tools suggested by the supervisors.
   a. Use pictures to explain such words as *alligator*.
   b. Use the brighter pupils to help the slower.
6. Illustrative questions and suggestions relating to the teaching of this lesson.
   a. Write a story like this one about a monkey and an elephant after reading this story once.
   b. How many of the plants that a rabbit likes to eat did he see on the other side of the swamp?
   c. There are several word pictures in this story. Find two. Draw them as the words make you see them.
   d. Write a question which you think is based upon the most interesting part of the story. At the close of the recitation we shall select the best.
   e. Have pupils choose favorite paragraph and give reasons for choice.
   f. Summarize the story by rapid drill.
   g. Have groups work out plans for dramatizing story.
   h. Questions should be read and answered in class.
   i. The oral telling of the story by pupils is an excellent form of review.
   j. Have pupils find phrases in book by scanning to increase speed.
   k. Make lists of words and phrases that tell "time," "size," "feeling," etc.

7. Professional reading suggested by the supervisors:
   McMurry, *Elementary School Standards*, Parker, *Types of Learning*, and Stone, *Oral and Silent Reading*.
8. Motivation.
   a. Give motivated assignments.
   b. Motivate by asking thought questions.
   c. Motivate by placing questions on board.
   d. Motivate by using new interesting materials.
   e. I should give teacher examples of motivation.
   f. By using games for phrase drills.
9. Questions (unclassified) supervisor would ask of teacher.
   a. How frequently is most of the class time spent in helping only a few pupils?
   b. Do children understand what they read at a first reading?
   c. Did all of the pupils need the drill?
   d. Were you right in making it a coöperative exercise?
   e. Was the plan well organized?
   f. What was pupil's method of getting questions?
   g. How many of class were stronger in any way when the lesson was completed than when it began?
   h. What is your opinion about devoting a class period to a few while the faithful attendants are merely being kept busy?
   i. What good habits were you encouraging in the large part of your class?
   j. What power was gained by their assigned work?
   k. How was the smaller division better for the assignment?
10. Miscellaneous suggestions.
   a. Visit a demonstration school — observe and compare.
   b. Write a report of this lesson, analyzing its excellencies and defects and defending your procedure.
   c. Take a year's vacation and go to school.
   d. Make your lessons correlate with the child's activities and life.

As has been said concerning many other phases of educational service, practice in supervision is far behind its theory. The work of the supervisor is to improve instruction. He must carry on his work through the instrumentality of the teacher. The teacher cannot be helped unless the supervisor working with her is sympathetic and is also capable of analyzing *correctly* the recitation observed. To do this he must see the underlying principles of true teaching involved. He must be able to offer suggestions for this particular case and not deceive himself or the teacher by commenting on the lesson in high-sounding pedagogical terms. Neither must he be led astray by trade devices. He must have "super-vision." He must see each recitation as a cross section of the particular teacher's skill, and he must regard it as the physician regards his X-ray plate: a basis for active remedial treatment if necessary and for satisfaction if there is nothing at fault.

In most recitations there are one or two outstanding features to which the attention of the teacher should be directed. The great merit of this recitation is undoubtedly its recognition of the differing needs of two groups. The teacher knew, apparently, to what

weaknesses the attention of the small group should be directed. She had not developed a technique which would enable her to keep two groups productively employed at the same time. She failed to provide a practice exercise for the small group which would be stimulating and interesting as well as effective.

The two points mentioned above may well engage the attention of supervisor and teacher for some time to come. By skillful questioning and suggestion on the part of the supervisor, the teacher should attempt to formulate some worth-while results which should accrue to each group from this type of reading lesson. She should then be led to convert the desired results into clearly defined aims or purposes, one or more for each group. With the desired results well in mind, and aims clearly stated, teacher and supervisor should search for materials and tools through which to work. This will involve finding interesting reading materials which contain the vocabulary difficulties that are to be remedied and the productive reading exercises to engage the attention of the large group. It means also a discussion of types of drills which are most effective, of the advisability of working out questions and study suggestions to be placed on the blackboard or upon cards to be passed out. The teacher should be led to see the necessity of knowing and taking into account the interests and experiences of children of that age group. Finally, she should be asked how she can determine whether the desired results have been accomplished.

Perhaps the greatest contribution of skillful supervision is the leading of teachers to test their own procedure, to check the effectiveness of their own methods, to analyze their own weaknesses, and to revise their teaching processes on a basis of such checks, tests, and analyses. Such teachers will grow and will need the further aid of supervisors only to direct them into newer lines of study and fresher fields of investigation.

The great variation in the analyses of this recitation which had one or two outstanding features, the indefinite character of the suggestions in many cases, the frequent use of professional terms of a most general nature, and the absence in all but a few cases of clear-cut analysis, of definite suggestions backed up by the statement of accepted laws of learning, reveal the need for increased practice on the part of supervisors in this type of analysis of recitations. Supervisors need also to digest and assimilate terms and statements presented to them in educational courses and gleaned by them from books. Such terms as "motivation," "socialization," "evaluation," "procedure," "purposeful standards," hurled at teachers will stun them effectively, but do we want teachers dazed because of the supervisor's erudition?

WHAT SHALL WE SEEK FROM A HISTORY PROJECT?[1]

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The history of schools and of education includes many a pious wish that the teaching of this or that subject may bring a goodly round of desired traits. The subject of history has been particularly rich in such promised outcomes, but the results have often, perhaps generally, disappointed.

Why has this been so? May it be that the young do not learn best from "subjects" taught as such? Possibly so. Possibly we should not expect much growth to result from the thought of another assigned to be "learned" as a task, accepted in its entirety, not answering to any need which was now reaching out to find and apply just these thoughts. Possibly a new conception of learning and consequently of method will yield better results. We accordingly ask, what outcomes can the project in history yield? What may we expect from a history project?

The essence of a project is a purpose. In history a variety of projects are possible. There might be so mild and inactive a purpose as merely to read for the story. This, for the most part, our schools reject as not strenuous enough for regular school time. Appreciably higher would be the purpose to understand any given event and relate it intelligently as effect and cause. Probably this is what we have naïvely expected from our traditional textbook study of history. This, however, has not often been a project for the pupils, since as a rule the teacher alone has supplied the purpose. A more spectacular project, valuable if not too frequent, is a dramatic representation of some historic event. The appeal of this to many is very strong, and much good can be derived from it. Perhaps the most valuable history project of all, especially for the most advanced grades, is the purpose to solve some problem located in a historic setting. This should be not the sole type of history project, but it should probably be for older pupils the most frequent. Two other types quite valuable and in danger of being overlooked as projects are, first, the purpose to organize for effective grasping and recall a period of history or a point of view, and, second, the purpose to fix in memory for future use the organization so made. I say these are in danger of being overlooked as projects. This is, I surmise, because we have so long set them as tasks, especially the last, that we have almost come to believe that pupils cannot or will not purpose them. The difficulty of securing such purposes must be admitted, but I for one totally deny the impossibility.

In order to answer the question set for us in the title, let us fix ideas by supposing a purpose of the problem type. Consider Mr. Hatch's junior high school pupils as they tried to

[1] Revised from an article in *School and Home* (Ethical Culture School), March, 1922.

answer (in 1920) the question: What should Great Britain do with or for Ireland?

What in general is the advantage of having the pupils feel the purpose to answer this problem? What difference does purposing make? The answer seems to me threefold. In the degree that the pupils do feel this purpose, in like degree are three desirable results more probable. First, they will work harder and are therefore the more likely to succeed in the efforts to answer the questions. Second, having a definite aim, they will have something by which to guide their search and try their findings. This should mean better organization for attack and better organization of results. In particular the pupils are more likely to think abundantly by way of connecting one element in the problem with its possible related elements. This may mean a very valuable mapping of a field of enquiry. Third, the interest felt in the endeavor makes for the better learning of what is done. Methods of attack, sources of information, connections in thought, meanings seen, and conclusions reached will be the better fixed for use in the student's mind and character. These having been learned in practical attack will be retained in readiness for practical application, and not as mere storehouse lumber useful only for examination purposes. To these three may be added a fourth, which is developed below, that besides the subject matter which is learned pertaining to this particular topic, there should have been developed certain important allied attitudes and tendencies.

What now of the specific outcomes implied in the title of this article? What does the intelligent teacher seek by way of outcomes from this history project? I cannot pretend to exhaust the list, but the following seem to me fairly indicated as the desired and probable results from a reasonably assiduous attempt to solve the problem:

1. That the pupils shall learn better how to attack such a problem; how to analyze it; how to find and use sources; how to organize material so found to the solution of the problem at hand.

2. That the pupils shall learn better how to think in such a field; how to judge their thinking, how to weigh evidence, and the like.

3. That they shall learn a considerable amount of the history, politics, and geography of England and Ireland, so much as concerns an intelligent treatment of the problem under consideration.

4. That the pupils shall grow in such desirable traits as open-mindedness, tolerance of others' views, belief that opinions should be based on study and regulated by the results of study.

5. That they shall make progress in gaining certain useful social *concepts* as absentee landlordism, in such social *ideals* as the orderly processes of settling national disputes, in such social *attitudes* as an appreciation of the worth of institutions.

6. That they shall build more definitely certain positive intellectual interests in history and politics, an interest in the Irish question, in English and Irish history, in European history, in history in general.

7. That they shall build such valuable personal attitudes as a reasoned

self-confidence in working at such matters.

8. That they improve in such social virtues as courtesy and coöperation with others, and in the settled attitude that "light, not heat," shall prevail in all such discussions.

9. That they build a greater respect for interest and achievement in such intellectual and moral enquiries and endeavors.

To comment adequately on this list would unduly extend this article, but I cannot forbear to point out that every time a class engages in such an activity or even in its sham and counterfeit, the pupils do inevitably change themselves for better or for worse under each of the heads named. They either improve or deteriorate in methods of attack or they become more firmly fixed in their customary methods. They either increase or decrease in open-mindedness or become more firmly fixed in their customary attitude in this trait. And so with all the others. We as teachers may refuse to think of these attendant learnings. We may, if we wish, fix our eyes exclusively on a certain list of facts of history counted to be essential to the educated person, and work for these only. But we cannot in this ostrich-like fashion escape the ineluctable fact that our pupils are none the less and all the time learning well or ill these other things. This manifold duty must be faced and consciously met. For my own part I believe that a régime of purposeful activity is the only way in which we can discharge this inevitable responsibility.

INTELLIGENCE TESTS AT WORK

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One of the most important reasons for giving an intelligence test is to obtain a better basis for the classification of pupils according to their attainments in the test. When such tests are given, it is always found that there is a wide range of scores for the pupils of any class. Reclassification of such pupils according to their scores so as to reduce this wide range of abilities makes it possible to increase the efficiency of instruction by fitting it more nearly to the needs of individuals. Children with a high score are being done a great injustice when they are held back to a type of school work which makes no demands on their abilities. Likewise, the pupils with low scores can not gain as rapidly when given work which is suited to a group capable of handling the work in a much easier and better manner. They easily drift into the attitude of a "dreamer" and as the result of repeated failures drop out of school at an early age equipped with a half-finished education with which they must face the problems of life.

Our teachers felt the need of having an intelligence test given to the pupils in the different grades for two reasons:

(1) that by classifying the pupils according to the results of the test, they might be able to do more successful teaching with the groups of like abilities; (2) the desire of knowing the mental abilities of the children in their classes so as to satisfy themselves as to which ones were capable of making a normal progress in their work, also those of exceptional ability, and those whose capabilities do not permit an average rate of progress in school work. This was probably brought about by the fact that the teachers did not wish their teaching ability judged wholly on the results of their teaching as measured by the standardized achievement tests, as it is manifestly unfair to expect teachers to make normal progress with a group of dull pupils.

The Otis Group Intelligence Test was chosen because it contains such splendid testing material organized and arranged so as to be easily scored and because of the high correlation of the results with those of the Binet-Simon test.

In referring to the different divisions of the grades in this system, the B division consists of the pupils doing the first half of the year's work, the A division the latter half. It was the wish of the teachers that all grades be tested, but, owing to the expense, the lack of time, and the inability to handle results, the tests were given near the end of our first semester to the Sixth A, the Seventh A and B, and the Eighth B grades in order that the results might be used in classifying the pupils in junior high. The Eighth A classes were tested in order that the results might be prepared for classification for high school entrance, for reference at any time so that the teachers might know whether or not any student was living up to the possibilities established by his grade work, and for any further use desired by the high school principal and teachers.

In classifying the pupils in junior high a sort of compromise method, as suggested in a communication from Dr. Arthur S. Otis, was used. As is often done, the pupils are classified according to their scores, but if the classification is made for the purpose of bringing together pupils who are likely to progress at the same rate although their abilities may not be the same, it is evident that the age of the pupil must be a factor in the classification, as a young pupil making a high score on account of being brighter than an older pupil making the same score, is bound to progress more rapidly.

According to the Otis test a measure of brightness which takes into consideration the child's age is the "index of brightness." We followed Dr. Otis' suggestion by adding together the pupil's score and his index of brightness. We called this sum the classification index and made all classifications according to these sums. In the eighth grades three divisions were formed, but because of the smaller number in the seventh grades it seemed advisable to have but two divisions in each of the A and B classes.

Without an exception the teachers in the junior high school feel the reliability of the classification and the advantages to both their pupils and themselves as the result. In the upper groups, with no slower children to retard the pace, it is possible for them to progress as rapidly and with as great a degree of

achievement as they are capable of doing. On the other hand, the children with lower scores are being taught at a slower rate of progress so that all keep up with the work, take a keener interest, and learn all that their capabilities permit. The teachers are making proper adjustments of their instruction to the characters and abilities of their groups. This is followed up with other adjustments as it seems best. There should be a uniformity of achievement within the grades that is impossible in the classes as ordinarily graded, where pupils differing in mental age as much as four or five years are trying to work together in the same class. This makes it justifiable for a school system to expend public money for such work.

The plan for classifying the pupils tested in the Eighth A classes is also one suggested by Dr. Otis. In this classification we took into account the composite judgment of the teachers also — not their judgment of the mental ability of the child, but of his school work. This judgment embodied an estimate of the average of the pupil's subject marks, his interest in school work, his perseverance, industry, etc., all of which are important. In this way every child has two scores, one score the result of the Otis Intelligence Test, the other the per cent given as the result of the teachers' composite judgment.

Referring to the chart, the dots near the horizontal scale for the Otis test represent the actual scores of the eighty-nine Eighth A pupils. The dots near the vertical scale of per cents show the per cent given each of these same eighty-nine pupils as the result of the teachers' judgment. A circle has been drawn around every fifth score and every fifth per cent in the two scales. Assuming that the relationship of the first score and the first per cent is equal, the circle is drawn where the two meet by following the lines representing the score and the per cent. Assuming that the relationship of the fifth score and the fifth per cent is equal, this is also shown in the same way by drawing the circle where the two lines meet. In like manner, the circles are drawn showing the relationship between every fifth score and every fifth per cent until we have a line of circles which represents the relationship between the scores gained in the Otis test and the per cents gained as the teachers' judgment. By drawing a line which cuts this line of circles, we have the line AB or the line of relationship as established between the percentages and scores.

The relationship between the percentages and scores is illustrated by the transmutation of the percentages to scores and vice versa. By following the line representing ninety per cent to the line of relationship and then down to the scale of scores we can see that, with conditions normal, a child receiving ninety per cent from his teachers should have made a score of 155 in the test. In the same way, a child receiving a score of 124 in the test, by tracing upward to the line AB and then to the left to the scale of per cents, should have received eighty-three per cent from the teachers. The dots on the chart represent the placement of each of the eighty-nine pupils according to the combination of the percentages and scores. A boy having a percentage of 95 and a score of 145 will have a dot representing

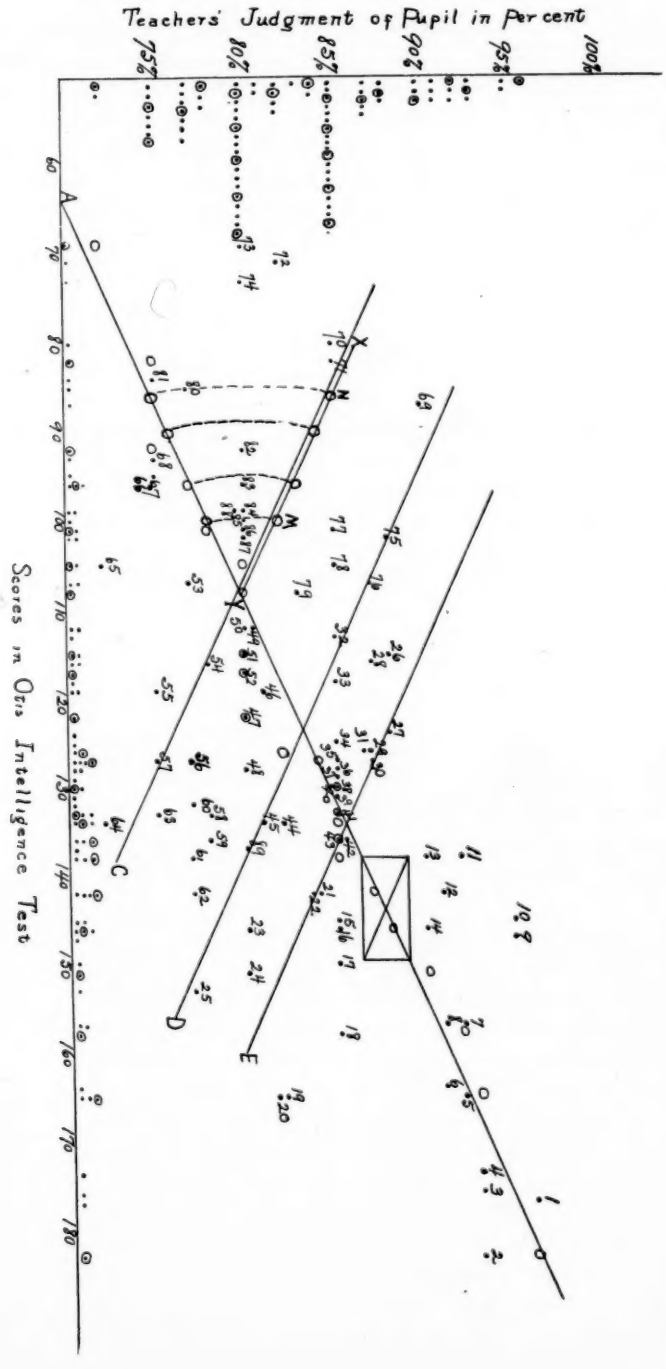
his score placed as is dot number 10. This is reached by following the lines representing a percentage of 95 and a score of 145 until they meet. Likewise, a child receiving a score of 119 in his test and a percentage of 75 from his teacher would have the dot representing his combined score placed as is dot number 55. This would indicate that this particular child had not been working up to his maximum for his teachers, for according to the line of relationship, a child receiving a score of 119 should have received a percentage of nearly 82; that is, he should be on the line of relationship, AB. Dot number 69, which shows a percentage of 90 and a score of but 87, indicates that either the teachers had overestimated the child's ability or that some condition at the time of the test retarded his score. In this way we have eighty-nine dots placed on our chart, each dot representing the combined score of one individual. The names of these eighty-nine pupils are recorded on a separate sheet, each name having the same number as the one placed by his score on the chart. Thus by comparing the figures on the chart with those on the separate sheet, the scores of any individual may be learned.

It now remains to establish the lines C, D, and E so that our eighty-nine pupils may be divided into four equal groups. These lines were placed in the following way:

A score of 100 is shown by the line of relation to correspond to a percentage of 78. If a child makes a score of 100 and is given by the teacher a percentage of 82 as shown by point M, the average between his actual percentage of 82 and the percentage corresponding to his score, which is 78, is 80. In the same way, another child making a score of 86 would have a corresponding percentage score of 75. If he receives a score of 86 and a percentage of 85 from his teacher as shown by point N, the average between his actual percentage of 85 and the percentage corresponding to his score, which is 75, is also 80. Therefore, all points plotted on a straight line such as XY would have an average percentage of 80 when actual percentage and percentage corresponding to score are averaged. That is, every point above and to the right of this line means that the pupil's average percentage is above 80 and every point below the line means that the pupil's average is below 80. Therefore, the lines dividing the dots into four equal groups must have the same slant as the line XY, so that all points above the dividing line will have higher average percentage than those below the line. It happens that this line must necessarily have exactly the same slant as the long line of relationship, AB. This is for geometric reasons as can easily be seen by the completed parallelogram on the chart. To simplify the method of establishing the lines C, D, and E, which divide the group into equal divisions for class purposes, the following is given:

From any chosen point on the chart draw two lines at right angles until they both touch the line of relationship. Complete the parallelogram. The line of relationship is one diagonal. Draw the other. This diagonal gives us the slant at which all dividing lines are drawn.

We chose to divide our class into four


Teachers' Judgment of Pupil in Per cent
75%
80%
85%
90%
95%
100%
Scores in Otis Intelligence Test
60
70
80
90
100
110
120
130
140
150
160
170
180
A
C
D
E
X
Y
N
M

groups. The number of groups, however, is optional. As many lines as desired may be drawn, dividing the groups into as many equal divisions as are required. This is easily done by laying a ruler across the line of relationship at the lower edge of the paper at exactly the same slant as the diagonal of the parallelogram. Move the ruler up the line of relationship at this same slant until below it is given the number of pupils that are desired in this group. Draw the line C. By again moving the ruler along the line of relationship until the desired number is counted off, draw the line D. Repeat this until the number of groups desired are formed.

It remains to be seen what success may be achieved from such a classification. Without a doubt it should be a great guide as to the courses in which these individuals should enroll and for the teachers in dealing with individuals failing in their work.

THE CASE FOR DIRECT LEARNING

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The direct-learning project may be defined as one whose immediate purpose is the acquisition of knowledge or skill, or the development of attitudes or appreciations. In direct learning the child seeks the knowledge or skill because he keenly appreciates its social value. He knows what he is to learn by means of the project activity and the consciousness that he is learning it is satisfying to him. The mastery of subject matter is his immediate purpose. He is willing to attack educational objectives directly.

In a former article, published in this JOURNAL,[1] the writer defines both the direct-learning project and the incidental-learning project and contrasts the two types of learning, the incidental and the direct. In this article the incidental-learning project is defined as one whose immediate purpose is not the mastery of subject matter but the gaining of an objective for which the incidental mastery of subject matter is necessary. Attention is called to the fact that in this type of project activity the child does not know what he is to learn and may not be conscious that he has learned anything even upon the completion of the project activity. In fact, the project belongs to the incidental-learning type only so long as the child can be kept ignorant of what he is to learn by engaging in its activity. The moment he knows what educational product the project activity is to yield, and is conscious of the *real* purpose of the project, it ceases to be an incidental-learning project and becomes a direct-learning activity. The difference between the two is not qualitative, but functional. When the project activity is used as a means to acquire information or skill, to develop attitudes or appreciations, the project is of the direct type; but when the same project is used as an end and the mas-

[1] September, 1923.

tery of subject matter as a means to carry on the project activity, it belongs to the incidental type. Making an exhibit of products shipped in from South America for the county fair is an incidental-learning project. Making an exhibit of products shipped in from South America for the county fair as an interesting method of learning what children wish to know about South American imports is a direct-learning project. Making sugar booklets to be placed in the school library for future classes to read is an incidental-learning project. Making sugar booklets to be placed in the school library as the best means of learning and organizing facts children should know about the production of sugar is a direct-learning project. This summary of the definitions formulated in the former article should leave no doubt in the mind of the reader as to the exact meaning of the expression "direct learning" and as to the fundamental difference between direct and incidental learning.

As stated above, the acquisition of information is the objective in the direct-learning project. In using the direct method the teacher must first develop on the part of the child a desire for the information. When the child is in a state of readiness, the information is presented to him through the study of typical activities or situations. Then follows the separation of the information from the concrete activities or situations through which it was presented and the statement of it in the abstract. The association of the information acquired with other life activities or real situations of which it is a necessary part completes the direct-learning process. The following is a concrete illustration of the use of the direct-learning method.

Affected either directly or indirectly by the low price of corn in 1921, a sixth-grade class in a school located in the corn belt of Nebraska discussed a number of conditions affecting the production and the price of corn. Finally the class wanted definite information as to the conditions under which corn can be grown. By studying a particular section of the United States, known as the North Central States, the class learned that it is the greatest corn-producing region in the world because its soil is fertile and tillable, its rainfall is adequate during the growing season, its days and nights are warm during the corn months, and its growing season is long enough for corn to mature. At first the children thought of these essential corn-growing conditions in terms of the particular soil, rainfall, temperature, and season of the North Central States, and their knowledge had *only particular value*. To give it *general value* they were induced to find other corn-growing sections and compare the conditions under which corn is grown there with the typical conditions in the North Central States. Through this comparison the children discovered that in Minnesota, the Dakotas, and even as far north as Canada, where there is a shortening of the growing season, corn can profitably be grown by selecting a type that matures in a correspondingly shorter time. They found out that in the Great Plains, beginning with Wyoming on the north and extending even into Mexico, where there is a scarcity of seasonal rains, corn is grown

increasingly through irrigation. They learned that in some of the eastern states in which the soil lacks fertility, the growing of corn is made profitable by fertilizing the land and because of the necessity of the rotation of crops, and that in the southern states less corn is grown because other crops are more profitable. They decided that the conditions under which corn is grown in Uruguay and Argentina are similar to those of the North Central States, with the exception of occasional failures due to millions of locusts coming from the forests to the northward. They found Hungary and Rumania excellent corn countries, with the exception of occasional failures in the former and somewhat frequent failures in the latter, due to droughts; but these countries are also excellent wheat countries, which fact lessens the amount of corn that might otherwise be grown. In Egypt they found an entirely new condition that makes the production of corn there profitable, namely, the overflow of the Nile. Each comparison added new meaning to the original concept formed from the study of the North Central States and made it more real and world-wide in its application.

The above illustration conforms closely to the direct-learning pattern as it is defined in the preceding paragraph. (1) The children learned under what conditions corn is grown in a particular section. (2) They detached the information from this particular section, for the time being, and thought of it in the abstract. (3) They associated their information with other corn-growing sections and made the necessary modifications. Without careful analysis it may seem that not all direct learning conforms to the above type. The direct-learning pattern gets broken up and its parts get separated and used as more or less isolated lesson units. The first stage of the learning process consists of concrete work, sense perception, which children in the lower grades can do oftentimes before they are ready for complete generalizations. As a result this part of the pattern often becomes separated from the rest of it and forms an isolated unit in the learning process. The drill and the deductive lessons are other cases in question, the former involving mainly the second and the latter the third stage of the complete process. Each of these lesson types may become wholly isolated from the other stages of the complete learning activity. Thus one may get the impression that the various lesson types do not conform to the above pattern of direct learning. But, if the various parts are treated as isolated units, instruction goes wrong. They are all parts of the same pattern, as the above illustration shows, and should be so adjusted upon the completion of the learning process. Even as isolated units, the parts, if well done, approximate the direct-learning pattern. Object teaching suggests generalizations, though they be vague and not definitely formulated. The need for skill should arise from a concrete situation, and the skill should be *generalized* so that it has the largest possible usefulness. In deductive lessons the generalizations to be used have little meaning to children unless they are able to think of them in terms of the concrete cases used in their formulation. Even attitudes and

appreciations developed through concrete situations are generalized. We are thus safe in saying that all direct learning either conforms closely or approximates the pattern set forth in the above definition and illustration.

What, then, are the advantages of the direct-learning project? In the first place, it is suited to all types of instruction. If used in induction, a single purpose carries the learning activity through all three stages of the inductive process. The double motivation required in incidental teaching is not necessary to reach instructional objectives in the use of the direct-learning project. There is no interruption in the learning activity for the purpose of developing a new motive for its completion. Once the desire for information is aroused, it will endure throughout the different stages of the entire learning process. The incidental-learning project cannot develop a generalization. Not only is the direct-learning project suited to the inductive lesson but it is equally well suited to all other lesson types. In fact, the preceding paragraph is to show that all lesson types are merely parts of the direct-learning pattern.

This brings the discussion to a second advantage of direct learning. In using the incidental-learning project the learning process is broken up into parts and each part is treated as an isolated unit. The effect of incidental teaching upon the complete learning process is disruptive. Incidental teaching always breaks up the learning pattern, but never restores it. Just the opposite is true of direct learning. As shown in the preceding paragraph, the effect of the direct-learning project upon the learning process is unitive. A single project of this type unites the various stages of the learning activity into one process. It keeps the parts of the direct-learning pattern intact. This unitive tendency of direct learning gives it a third advantage over incidental learning. The direct-learning project treats larger units of subject matter and therefore makes for a better organization of knowledge than does the incidental-learning project. The proof of this statement lies in the fact that the thing learned by means of the direct-learning project is associated with a sufficiently large number of life activities or situations to give it world-wide application, while in incidental learning it is associated only with the project activity which it helps to make possible. As an illustration of how the direct-learning project requires an extensive organization of subject matter, the reader may recall the above description of the corn-growing project.

A fourth advantage of using the direct-learning project is that the information so acquired has general value. The child's desire is to possess information not as it functions in a particular situation, but rather as it functions in a number of situations. Each new association adds new meaning to the knowledge and makes it more accurate and world-wide in its application. Only when many useful associations with what is learned are formed is the learning process completed and the purpose of the direct-learning project fully realized. Such learning gives knowledge large transfer value.

A fifth advantage of direct learning lies in the fact that it tends to make the desire for information habitual with the child. Through the use of this type of project the child eventually becomes a seeker after truth. Not that he seeks knowledge for knowledge's sake, but rather knowledge for the sake of its human value. What he learns is presented to him through its functional relations to particular situations and then associated with other life situations. In this way he learns to appreciate knowledge for its social value. The desire to know always precedes the act to learn, and this is likely to make the seeking after truth a life objective.

A sixth advantage of the direct-learning project is to be found in the fact that its use is economical. It is economical, first, because no double motivation is necessary, the learning process being completed upon the realization of the initial purpose; second, because the child's attention is concentrated upon the thing to be learned, thus requiring the fewest possible repetitions and insuring maximal comprehension and permanency; and, third, because only that which the learning itself requires constitutes the project activity, making it thus unnecessary for the child to do a number of other things for the sake of the knowledge factor.

Has direct learning any disadvantages? The advocates of incidental teaching assume by implication that the learning activity in and of itself is annoying to children and that it cannot be adequately motivated. They assume that a desire for what is to be learned cannot always be aroused in children and that the direct attack upon knowledge is not effective. Rather than employ coercion to get the child to do his school work, they propose to organize project activities in which he can be led to engage wholeheartedly and through which he will acquire *unconsciously* the information or skill, the attitude or appreciation, which he should possess. The writer does not believe that the advocates of incidental teaching are correct in their fundamental assumptions that learning as such is annoying to children and that the mastery of subject matter cannot be motivated sufficiently to bring about wholehearted effort on the part of children. He bases his belief upon his own experience and observation. He has always found children ready to learn. They have never refused to do willingly what he has asked them to do, provided it seemed to them worth while. He has observed teachers who never failed to get their pupils into the work purposefully and wholeheartedly. There was no subject matter in the curriculum the mastery of which they were not able to motivate. The daily experience of many teachers proves that all subject matter, selected on the basis of human value and organized into direct-learning projects, can be made so attractive to children that they will attack it purposefully and wholeheartedly. If the subject matter has social value, it can be vitalized. There can be developed on the part of the learner, preferably through his interests in the life activities affected or through the interests his family has in these activities, a keen appreciation of the value of what he is to learn. To this social and economic

incentive may be added personal motives by stimulating his curiosity or love of approbation or any other of his natural or acquired tendencies until the thing to do seems enormously worth while to him. Direct attacks upon vital educational objectives can be motivated.

A CHILDREN'S YEAR

ETHEL ROBB
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As I entered the kindergarten room one day toward the end of April, the children swarmed about me, tumbling over one another to get near, tugging at my dress, pulling at my gloves, beaming up into my face with joyous calls of, "Good morning, Miss Robb," "Come and see what I am doing," "I made this," "This is mine," and before I knew it, I myself was so filled with the glad desire to *do* that I had asked the superintendent for time to write of what was going on in that kindergarten. He needed no persuasion. Can greater good be said of a superintendent?

The kindergarten room was an ordinary room, twenty by thirty-six feet, with windows on two sides and blackboards along the other two. There was a good-sized supply closet and a low cupboard where working materials were kept with individual boxes for each child's pencil, scissors, paste-jar and stick, crayons and paints. There were window-boxes, a piano, a sand table which was shared with the first grade, a chest of enlarged gift blocks, two tables of a good kitchen variety, and six long kindergarten tables on which children had once spent so much time in placing parquetry and sticks in such tedious rows of squares that they had never again desired to see anything squarely placed. Just an ordinary room it was, much overcrowded, with a bump in the floor — right in the middle of the circle — where water pipes must be below and which often proved a hazard to people trying to skip or hop before skipping and hopping muscles were able to gauge how far it was to the floor and back.

The children were ordinary children from four and a half to six years old. Four were children of Italian parents, one of Polish, while the rest were Americans of a longer lineage. Some were well-to-do and others too poor to afford an overcoat in our coldest winter. Some had daily baths, others possibly monthly ones. Some had dolls and crayons and skates at home; others had sticks and stones from the streets, with three or four younger sisters and brothers to share them — just ordinary children of a public school kindergarten in a small and prosperous city of eastern New York.

The materials with which they worked were ordinary, too. A cart, a small table and dishes, dolls, balls, train, horse with dray were the kindergarten toys, though children often brought autos and fire trucks and other fascinating things from home for all to

enjoy. There were good pencils, crayons, scissors, paste and paints, plenty of tea-paper, white, yellow, and gray manila paper, and a limited supply of coated and construction papers. Boxes of all shapes, spools, and in fact every kind of thing that catches a child's eye when bureau drawers are being cleaned at home were constantly being brought in for some one to transform into things very necessary to the life of a happy child — just ordinary things that children love.

But the principal was not an ordinary principal and the teacher was not an ordinary teacher. At least as far as I know principals and teachers, they were both exceptional. Yes, they were both women of some twelve or fourteen years' experience. Both loved their work and were keenly interested in watching little children grow — could actually see them growing when the growth was evidenced by nothing more than a smile breaking out on a once stormy face. They had both been trained in a rather formal, teacher-way of getting children to do things and had always been successful in that way. Then something happened — a word, perhaps a question, a suggestion, a hope. In some way they felt that the word was good. They believed, and both were willing to put it to the test.

I cannot emphasize too strongly the tremendous help that this attitude of the principal was to the teacher. We encourage our kindergarten teachers into better, more glorious ways of living and of bringing life to their little children. We see the vision in their faces. We watch their efforts to realize it. Unless the man higher up is in sympathy with it, the task becomes so overpowering that desire itself vanishes, to be replaced by a self-division which makes drudgery of work that should be all joy. Surely, while a teacher is in the thick of the fight, struggling to find herself in a new way of helping children grow, a supervisor should do all in her power to protect her from forces that pull her down. It is a serious task. But if once the teacher can actually produce results and if others, who perhaps have really thought very little about tiny children, can be led to appreciate the values of these results, joy comes as surely as the dawn.

In this kindergarten songs were sung much as they are sung in every kindergarten. Games were played with abandon and joy. Stories were told and told again, but everything seemed to be connected in some way with what the children were making with their hands. If a fine horse walked along the edge of the kindergarten table, children galloped about the circle to a bouncing rhythm. Constantly song and story and game reflected or were reflected in the hand work. They all went along together, the children singing as they worked, or checking up the value of a story by the new ideas it gave them for something to make — a normal, happy life, much as you and I live when we are happy.

In looking over the daily record which the teacher had kept since school opened, I recalled different discussions we had had along the way. The previous year she had been convinced that from the very first, and continuing for some weeks, on Monday all the children

should use crayons; on Tuesday, pencils; on Wednesday, scissors and paste; on Thursday, clay; and on Friday, choice. This was the proper way to give them all an equal control over these materials. I did not deny her logic, and her record proved that it brought results.

As I looked at this year's record, however, I saw nothing of the kind. From September sixth to October eleventh I saw a list of everything under the sun that the children had made, using every kind of material, individual work mostly, which was significant, showing the multitude of things that appeal to children. Tents and houses, boats and ladders, feather dusters and snakes, watering troughs and pumpkin pies, men fishing and butterflies, quilts and Indian caps, baskets and carts, flowers and pictures, books, handkerchiefs, lamps and aëroplanes, swings, hammocks, and cradles, brooms and horses; what teacher could plan on the countless things that the children would want to make?

On the ninth of October the whole class made a Columbus poster, his gallant ship sailing the treacherous deep. This was the first time that all the class had been brought together to do the same thing or to use the same material.

From October thirteenth to sixteenth toys were made for a toy-store, brooms and spades, lanterns, carts and dolls, balls and balloons, pianos, horse-reins and pocketbooks, tables and chairs, with money to buy them.

On October seventeenth the sand table was wheeled into the room for the first time. One little fellow made a path through it which he called a street. At once there was a general rush to the tables to make houses. The boy who had seen "street" in the path his finger had traced stayed to lay block sidewalks and clear the road. From that day until October thirtieth, the children worked like little beavers on their city. They made stores, houses, barns, schools and churches, telegraph poles and wires, a fire house with fire-alarm boxes, chicken coops, kennels and bird houses; clothes swaying in the back yards; fences and flowers; men reading under trees; women sweeping the sidewalks or going to the store; children on roller-skates and bicycles; children drawing others in a cart or pushing a baby carriage; farmers with loads of apples drawn by strong horses; autos and trolley cars; a girl posting a letter in a green letter box; another jumping a rope. Really, all the things one would see on Main Street were there.

Everyone in the school was interested in the growth of that city. Older brothers and sisters came in before the last bell to encourage their charges to greater efforts, suggesting and advising, approving and disapproving, and now and then lending a hand over a difficult place. Once Miss Smith said to me, "There are so many grown-ups in here that my little children can scarcely move." It was true, but the last bell was arbitrary enough, without the kindergarten supervisor's being so.

A Hallowe'en store, where horns, masks, hats, witches, black cats and jack-o-lanterns could be bought for a bit of paper, and a glorious party with candle-grinning pumpkins in a darkened room, peanut hunt and all, made

kindergarten thrilling from October twenty-third to the thirtieth.

On the first of November the teacher showed the children how to make a really good chair and asked if they would all like to make chairs. All did make them and immediately a kindergarten was born. With thirty little chairs, what else could be born? A dozen children and a teacher came the first day. The second day a room with doors and windows was built about them and a desk, window-boxes with flowers, a sand table and blocks appeared, while a surprised-looking principal and a supervisor with a big, red hair ribbon lent their dignity to the scene. The third day cupboards, tables, clock, piano, picture books, rugs, pictures for the wall, more chairs and window-boxes, and children were added. On the fourth, visitors appeared and big chairs for them were needed and produced, and a box of tiny scissors thrilled every beholder. The seventh day a miniature janitor came in to see what it was all about and stood looking pensively out of the window; a bowl of flowers was placed on the teacher's desk. Piles of paper for the cupboard, a screen for the play corner and dolls, trees for the sand table, more chairs for more visitors, and so the work went on. Were the children happy? I wish you could have seen them! It surely was a model kindergarten.

For five days a bakery and baskets of fruit and vegetables engrossed the children. Then an Indian picture appeared on the blackboard with figures not unlike those painted on rocks by the original Americans. A dense woods almost concealed the redskins, but a fire burned in the clearing, and in its light one could discover canoes and tents, and in the distance a log cabin. Who had been so venturesome? Was it Miles Standish?

For the next two days the children worked on a dolls' party, making numberless dolls in glad array, and then decorated plates for their own Thanksgiving party.

Then came Christmas!

I believe that every kindergarten for all time has been a joyous place during the weeks preceding Christmas. It is supremely a children's festival, for who has a real Christmas without children to mystify and tease and to do the thousand things that only children can do at Christmas time?

Gifts were made for fathers and mothers, and invitations were sent to them to come to the Christmas party. Toys were made and sold in a toy store. The room was resplendent in silver and gold, red and green. The Christmas party was an "occasion." Thirty mothers with many babies crowded the walls, children sang and recited appropriate verses, marched, played Santa Claus, gravely passed favors with candy inside, and presented happy mothers with gifts they had kept secret for weeks.

The record shows that from January fifth to the fifth of February the work largely swung back to individual endeavor, with winter activities reflected predominately, though for four days the children worked eagerly on a clock store, when clocks and watches of every description were made and sold, and for two days the city that had been made in the sand table in October reap-

peared as a poster on the blackboard, with hills and with children sliding and skating on a pond under the electric light.

A class lesson was given on the twenty-ninth of January to discover the intricate art of making a real paper soldier, the third time during the year when all the children were making the same thing. This lesson was put in as a group affair because on the previous day several children had made a parade of soldiers on the board. Some were whole-bodied, but some had lost an arm or an eye, and when the parade was evaluated Miss Smith said, "Some day let's learn how to make really good soldiers." The only dictation given during the class lesson the following day was to ask, "What should a soldier have?" A head with a sufficient number of features, arms to hold his gun, legs and feet with which to walk were considered necessary, also a uniform, which was generally brown, though one of green, red, blue, purple, or gold did not prevent his joining the colors.

From the fifth to the thirteenth of February, with the exception of making flags on Lincoln's birthday, the children made every kind of Valentine imaginable. A post box was put up in one corner of the room and posting a letter was quite as important an event as it is in the village store. Valentine's day was "just a party," as Miss Smith said, but this party was a real one. The children dressed up in paper caps made for the occasion, they played "Marching to Jerusalem," "Blind-man's Buff," and "Button, button," then had candy hearts and cookies, and all went home, not having done a stroke of work but having grown immeasurably in their ability to live together and play together. Is any growth of greater value to little children, who, after all, have a serious life of living and playing before them and cannot get about it any too soon?

For the next seven days everyone was keenly alive to the virtues of George Washington and of making those things that pertain peculiarly to true soldiers. The kindergarten was organized as a military camp with captains, lieutenants, orderlies, etc., and a fine company street graced the sand table, where soldiers stood at attention before a general.

Late in February John's mother had to order coal before John left for kindergarten. During the morning a mountain was evolved on the blackboard, which was said to conceal coal in its depths. For several days a host of sober-faced miners with pickaxes and tiny lamps in their caps went to bring it forth and load it on the waiting train, which, after a journey all across the board, through a thick woods, arrived at the village of miners' houses.

Paper dolls, two feet tall, were the cause of much fun and effort for three days and, the sand table being again in the room, a mine with real coal and later a lighthouse in a sea of real water with boats appeared.

By now it was Easter time. For four days the children made flowers and bunnies, nests of eggs and baskets. Then Miss Smith visited another kindergarten and the supervisor took charge, feeling that to do so would be good for her soul. It was. There were so many things going on in that kindergarten all at the same time, with

such constant demands of "Miss Robb, see this," "What shall I use?" and other equally vital questions, that her head was in a whirl literally as well as figuratively. When the last child had gone home she sat down and thought it over. Energy seemed to be wasted because of a lack of something to do that could not be done by clever children in half a minute. It was suggested that the teacher direct this energy into something that would take several days to accomplish.

It was decided to have an Easter store for first-grade children, and for seven days there was scarcely an aimless move among the thirty-five children. One can imagine what was made for this store, but no one can imagine the beauty of a little sewing-box on which I had set my heart, but which was eagerly bought by a first-grade boy just as I arrived at the counter. It was the first time that other children had come to a kindergarten store for the purpose of buying kindergarten wares. Many of the older children had been in daily to exhort their younger brothers and sisters to greater efforts so that there would be something worth buying, but none had ever before produced paper money from his pocket and received goods in return. Each kindergarten child had before him only what he had made that was worth selling. Some children had ten or more objects, others two, and at the end of a very few minutes some went home with pockets stuffed with paper silver, others with very little. As the first-grade children entered the store they were a bit awed by the unusualness of the whole thing, but soon they were eagerly asking prices and buying the best they could find. It was a true bargain-day crowd with as much noise as one would find about almost any bargain counter. And a boy bought the sewing-box I wanted!

The store had been such a success that the teacher devoted much of her Easter vacation to going over, subconsciously and consciously, what to do next. She thought of this and of that, rejecting each in turn as not having "lasting qualities." A May party came as an inspiration. It still is an inspiration to everyone concerned.

First the room must be decorated; the sand table must have a mother hen and chickens in a coop, and there must be tiny curly-tailed pigs in a pen in the corner. Then the children must have appropriate clothes to wear on such a gala day — wreaths of flowers for the girls and crowns for the boys, with saw-toothed tops as crowns always have, jewels sparkling in each tooth; aprons bedecked with pockets and flowers and embroidery crayoned carefully 'round; collars and matching cuffs for the boys, with a pink or yellow or blue tie, or red, green, or orange for that matter. There must be plates and platters and long-handled baskets for serving refreshments and tiny ones for favors, all trimmed with paper-toweling lace, and last, but by no means least, really quite most important, a grab bag! It was truly an inspiration, some of it coming from the teacher, much from the children.

Do you know what goes into a grab bag? Well, I do not, for it is not yet finished, but such wonders as I beheld in its green depths this morning made

me fairly gasp and turn to my pencil to tell its story. There was a piano with a thick book of music pasted as it should be so that it cannot fall off; there were carpenter's tools, mirrors of silver paper and even of gold, George Washington's picture, vases of flowers, soldier caps, a lemon squeezer (painted black for some good reason), pocketbooks, workbags, and actually a see-saw with one child up (pasted against a supporting wall on the side to hold him there) and another child down, all just as it should be. I am sure I shall be permitted to test the wonders of the grab bag just like every other self-supporting citizen in the community, for I put several things into it.

If the account of this children's year is of any value, it is only because it is a proof of certain things, vital to one interested in the growth of little children through experience as it naturally comes into a child's life or can be brought into it naturally by a far-seeing teacher.

The children were living actually every moment in kindergarten just as they do outside, reflecting life as it touches them through their own means of giving it expression, doing the interesting things that children can do anywhere, even in school, giving parties, preparing for them, inviting their friends, working and rejoicing in the results of their efforts, all actually living.

As the children lived, so they acquired information, naturally and simply and at the time when it would take fire in their experience and stimulate to effort at expression in some child-like medium. John's recital of his mother's telephoning for coal brought up the whole topic of mines and mining; a chimney made crooked on a housetop, that of fire control and protection. As the seasons with their community happenings rolled around, the multitude of things significant to the life of a child were brought to his attention, in some cases because the stage had been definitely set by the teacher, but in most cases because she was quick to see the far-reaching possibilities in the things the child contributed to the experience of the group.

The children worked and played, much as you and I work and play, sometimes alone, doing a particular thing for no other reason than that it is the particular thing we want to do at that moment, and sometimes gathering about them a congenial group to help in some enterprise or joining one already formed by several having a common purpose. At first they tried out materials for the mere joy of using something new, as you and I brush our fingers over a strange piano merely to hear its tone before we sit down and play the "Butterfly Étude." At the beginning of the year, individual projects predominated because the five-year-old is largely individualistic and has learned neither the value nor the joy of group endeavor. This did not disturb the teacher. She gave this individualistic tendency full play, relying on the games and songs and talks to quicken the "consciousness of kind" and rejoicing that the similarity of the thirty Columbus posters gave the children joy.

Throughout the year it was proved that a thing enjoyed once is enjoyed

again and often in an altered form showing greater effort at making the thing true to life. Paper dolls of some kind or other had been made by every child and were made at least once a week by several of the children. When their size approximated that of a real baby sister, the idea of paper dolls took fire again in every child's breast and burned brightly for three days. Mining a blackboard mine was experienced again in the sand table several days afterward, and the city so successfully built in October was given new birth in February.

Sometimes the child's expression was the direct reaction to some experience in his home life, as in the case of the mine. Sometimes it was due to his reaction to some material in the kindergarten, as in the case of the finger-traced path in the sand table. Often it was stimulated by something made by another child or by the teacher herself, as the little kindergarten chair. The teacher's business was to see that interesting experiences came into the child's life that would stimulate him to fruitful activity, and she never felt it amiss to suggest a May party or an Easter store when no adequate suggestion came from the children.

As the projects originated naturally in the life of the child, so they grew naturally, parts being added and changed with further thought and work on them, one thing suggesting another, each time the concept of the whole becoming more nearly a true concept, as in the case of the model kindergarten.

The variety of the children's interests was astounding and gave much food for thought. What teacher sitting at her desk in the fall would attempt to enumerate the multiplicity of things made by these children during the year? A snake? Would any teacher suggest a snake, or a feather duster? A snake would be too loathsome, a feather duster too difficult. Yet the whole kindergarten watched the snake creep along the floor to its hole, and the feather duster actually dusted tables and chairs.

Another astonishing thing is the remarkable ability children have to see and think for themselves if only they have the chance. One-legged soldiers had been well enough in the hurry of the moment, but when one thought about it, of course they needed another leg and probably an eye or two. A horse needs a neck, "so that he can look back at you," and I suppose that really is a very good reason for a horse's having a neck! At least it is different from a reason that I might give and so is valuable. "Mary's doll does not stand because her hat is too big"; "Tom's drum comes apart because he did not hold it fast until the paste dried"; so the children diagnose their troubles if left free to do so.

Lessons were imposed for only two reasons and in very few instances. When an effort had been made by several children to do a certain thing and the results had been unsatisfying, the teacher felt that there was a definite need to raise the general level of achievement along that line and gave a class lesson, as in the case of the paper soldier. This, and for the sake of fixing the significance of some holiday, as Columbus Day and Lincoln's Birthday.

A final observation that might be drawn from the account of the year's work was the inestimable value gained by the supervisor from taking over the class herself at Easter time. A truer diagnosis of the difficulty was made because she experienced it. In other kindergartens during the year she had taken over the class for three or four days when the need seemed to require that time, and always with an appreciable growth on her part.

Did the children grow during the year? Was it visible day by day?

Yes, they grew, but the growth was not always apparent until suddenly one realized how they had grown! They grew from thoughtless, irresponsible, individualistic or even anti-social human beings into thoughtful, responsible, coöperative and joyful members of a big family. They grew, each one, from unobservant, uninformed little children with narrow interests into keen and intelligent observers, interested in everything under the sun. They grew from timid, easily thwarted children, dependent on others for their very thoughts, into self-confident, persistent children, able to do and even to think for themselves. They "burst into song" and into verbal expression of their experiences, and from aimlessly manipulating the transformable materials of the kindergarten, they grew to be able to choose what they wanted to do, to select the things to use, and to follow the activity through to a satisfying result. One could take the year's record and jot down the habits and attitudes, the standards and ideals quickened or definitely fixed during the year, just as our teachers note them down in planning their week's work, and what would it reveal? That the children had lived together and worked together and grown into children more able to live and work with others, well started on the road to a useful and joyous citizenship in this democracy of ours.

How did it all come about? Through living, yes; and what was the teacher's living?

In the first place the teacher had back of her at every step of the way the keen interest and intelligent sympathy of the principal. They both felt that it was one of the biggest games on earth, with the immaturity of thirty-nine little children and the possibilities of the kindergarten pitted against the ideals, wit, and insight of the teacher, and they played it hard. There were moments of depression when the volleying seemed too terrific, but they were moments only. A swift stroke, a rush to the sidelines kept the game going; and slowly and surely the love score crept up and the game was won, a glorious game, and they played it for all they were worth!

The teacher knew what she wanted — growth on the children's part and growth on her own part. Every move was quickly analyzed; if it promised growth it was used for as long as growth resulted from it. When growth ceased, a new stimulus was supplied, a stimulus that would quicken and guide developing mental and physical powers but constantly judged in the light of even higher things. "Will the children live together better because of this thing; will they be better able to choose what they want to do; will it increase their

joy in independent achievement and lead on to further achievement and joy tomorrow?". As the game progressed the teacher grew ever more keen in seeing the possibilities in least things until this became a conscious power and she rejoiced in it.

The game lived with her constantly; she gave all of herself to thinking it out. She found suggestions as she prepared the dinner or walked with friends. "Subconsciously," she said to me the other day, "the way opens and I see good things of which I had never dreamed before." She gave herself to the game.

She studied what experts had said about the way the game should be played and she discussed her play with others playing the same game. Throughout the year the kindergarten teachers met weekly to study the series of articles published by Professor William H. Kilpatrick in THE JOURNAL OF EDUCATIONAL METHOD[1] and to tell each other what was going on in their several kindergartens. The articles opened her eyes to the possibilities in the game, giving the psychological foundations for the play and showing the way, while questions and discussions based upon them brought them home to actual kindergarten experiences. Only through thoughtful study under expert guidance, the articles by Professor Kilpatrick being in this case the guide, can new paths be broken, new and better ways found.

The teacher had learned the valuable lesson of "Hands off." With growth as her aim, she had no hard and fast conviction that her way was the only way. She was quick to accept a valuable suggestion from a child, giving up gladly what she had considered right, if the child's suggestion was better — perhaps not better at the moment but better in the long run because of the growth attained along the way.

Constantly one realized that the children were passing judgment rather than Miss Smith, judging the process by the results obtained. "John, what is the matter with your wheelbarrow?" Does every teacher reading this realize how difficult it is to say this rather than to tell the child what to do or to do it for him? We are so clever, can do things so quickly. Does our doing it and the child's doing it well amount to the same thing, or is it possible that our not interfering yields him a right which we all demand for ourselves and increases his interest and joy as an equal partner in the game? Whose good is most at stake, ours or the child's? Only as we let him grow do we ourselves grow — grow not in hand-work or singing, perhaps, but in insight and patience and in the thousand ways in which one grows who thoughtfully works with little children.

Finally, the teacher constantly watched the details of her own work and tried to improve. She watched her voice and tried to keep it so low that it would be noticeable among the high voices of the children. She tried to speak seldom — a question or perhaps a suggestion that would toss the ball back within bounds, where the children might catch it up and continue the play. She watched the amount of help which she gave to the children. I have

[1] September, 1921, to May, 1922.

seen her stop in the midst of a sentence and say with a smile, "But I am telling you and you want to tell me. What is it?" I have seen her again and again pull her hands away from a bit of work that the child might grow through his own efforts. She planned her work carefully, holding growth as her aim, using seasonal and community interests as a stimulus; she revised her plan constantly because of today's experience, and kept a careful record as a guide for the following days.

Agnes, a freckle-faced, sandy-haired little Scotch girl entered the kindergarten the first day of school. I noticed her as her mother pulled her inside the door. A week later I saw her standing sullenly near the blackboard as the other children marched. When they went to work at the tables, Agnes stood aloof, black as a little thunder-cloud. Morning after morning this continued. She would enter the room, suspiciously perhaps — certainly in some strange mood, I could not penetrate her mind — and slowly, cautiously, find a vantage point and watch proceedings until time to go home. Various ways were tried to lure her into the group, to surprise her into carrying her chair, to tempt her into playing with a doll or the beads. Week after week this went on. We were in despair. We would decide that force was needed and, holding her hand tightly, would bring her to the circle only to see her draw away as soon as her hand was released. We would ignore her, hoping that the children could accomplish what we had found impossible. We would coax and pet. Everyone was very much distressed. The children tried with dulcet tones to get her to sit with them. All of their means were exhausted. Actually, until Christmas, Agnes was unapproachable, with never a smile on her face.

The other morning as I went into the kindergarten, I saw a little sunbeam flitting about, resting first on this thing, then on that. It clung to my knees. It glided off to caress a doll, and when we all went to the circle it crept into Miss Smith's lap and there it stayed to make us all happy, for who could resist the beaming smile that greeted everything that happened? This was Agnes. I cannot tell what had brought the change, for I do not know. All that I do know is that Agnes had grown. Sunbeams had been freed of thunder-clouds. The children had grown, for could there be sunbeams without life and growth resulting? The teacher had grown. Surely it was a children's year!

THE CLEARING HOUSE

A FIFTH-GRADE HISTORY PROJECT

I. The situation calling for adjustment.

The 5-B History class, studying European history, thoroughly despised it. They complained that it was hard, full of long names, and uninteresting. They were learning very little.

II. Defining of purpose to adjust the situation.

The children told their feelings about the subject, and the teacher determined that in some way the history must be vitalized. It must be recognized as a chronicle of real men and women, not as long names in a book.

III. Casting about for solution and formulation of plans.

The teacher asked the pupils what they wanted to do. One boy said, "Let's make a big sand tray out of doors, and build Rome on it." Out of this pupil suggestion, the project was born.

The plan of work as finally devised by the class:

1. Selection of site of tray, choosing of materials and workers.
2. Construction and filling of the tray.
3. Division of Roman history into units for study, and selection by each child of his favorite unit.
4. Assignment to each individual, or committee, of reading covering each unit of history.
5. Socialized recitations or the bringing together for class criticism of the results of reading, and a presentation by each person, or group, of definite plans for construction work.
6. Actual work of construction on the sand tray.
7. Final exhibition of the finished city to other grades, and to a college class, before which some of the lessons had been taught.

IV. Carrying out plans with modifications.

1. The tray was originally planned for out of doors, but it was found more practicable to construct it on the porch of the Training School building.
2. The materials used for tray: boards given by janitor and sand from the playground. Material for construction of the city: clay, cardboard, light wood, cigar boxes, paper, and dolls dressed as Romans.
3. The boys built a tray on floor three by six feet; the children carried the sand in buckets. Each group had at least one piece of construction work for which it was solely responsible. After the various buildings were ready, they were put into place by using a map of Rome, in order that their relative positions might be correct.
4. The units of history were:
   a. Geography and early history of Rome.
      (1) Site on Tiber River and Seven Hills: construction.
      (2) Story of its founding by Remus and Romulus.
   b. Home life of Romans.
      (1) Plan of Roman house: construction.
      (2) Position of women.
      (3) Education of children.
      (4) Roman dress: dolls dressed.

c. Amusements of Romans.
   (1) Gladitorial combats.
   (2) Theaters: construction of Colosseum.
   (3) Public baths.
d. Military life of Romans.
   (1) Wars with Carthaginians.
   (2) Conquests of Gauls and Germans.
   (3) Great heroes: Caesar, Hannibal, Vercingetorix.
   (4) War machines and weapons: construction of chariots.
   (5) Roads and city walls: construction.
   (6) Triumphial arches: construction.
e. Religious and social life of Romans.
   (1) Slavery and its effect.
   (2) Religious beliefs.
   (3) Temples: construction of Pantheon.
f. Civic life of Romans.
   (1) Development of law.
   (2) Importance of the Forum.
   (3) Government of the city.
   (4) Water supply: construction of aqueduct.

V. Culmination of Project.
   1. Assembling of work on the tray.
   2. Exhibition of finished city to other classes.
   3. Writing of account of work done, by children.

VI. Results of Project.
   1. Greatly increased interest in history.
   2. A wider knowledge of Roman life.
   3. A conception of Romans as real people.
   4. A greater skill in construction work.
   5. Spirit of coöperation and pride in class accomplishment.

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A SECOND-GRADE PROJECT

"A party?" said the teacher, "how can we have a party here?"

"Oh, it need not be a real one; couldn't we pretend? We can sing, play games, and tell stories."

Such enthusiasm could not be disregarded; so the consent was given.

When the 2A-1's heard what the 2A-2's were going to do, they did not want to be excluded. It was then decided that each class would be the guest of the other, thus making a joint party. With this "lead," the project was launched.

The boys started out by calling the party a "make-believe" one, but soon found that many features might be real. One boy suggested that both classes save the cakes which they would receive for their ten o'clock lunch, and eat them in the afternoon, on the day of the party. Everything, of course, in the way of decoration and entertainment was real.

In order to show what each department contributed toward the project, it will probably be best to consider, separately, each subject. (I may add, by way of explanation, that this project was worked out in an institution using the departmental system.) As the idea originated in the arithmetic department, we shall start there. The first questions to be answered, of course, were: "What shall we do at the party?" and "What shall we have to eat?" The following are the separate lists made out by the two classes:

2A-1

Costumes
Favors
Decorations
Games
Music
Refreshments: Candy, Cakes, Ice Cream, Nuts, Lemonade

	2A-2
	Games
	Stories
	Music
Refreshments	Sandwiches
	Ice Cream
	Cakes
	Candy
	Bananas

The work in "number" centered about the refreshments. Two weeks of work were required before the cost of the undertaking could be definitely stated. All the teachers in the building were questioned from time to time, concerning costs and amounts. They were asked, "What is the price of a dozen lemons?" "How many people will a quart brick of ice cream serve?" One teacher was rather nonplussed when a boy wanted her to tell him how many teaspoonfuls of sugar there were in a pound. This had to be found out before we could decide how many pounds of sugar we should need. We had calculated on three spoonfuls to each glass.

As every teacher knows, one can usually depend upon a child's imagination. The boys decided that ice cream could be made in the drawing department, by folding and then pasting white paper to form rectangular blocks. These were then to be colored pink and brown to represent strawberry and chocolate. The boys thought that here, too, would be the best place for making favors. With these, each class planned to surprise the other.

Preparations now went along of their own momentum. Every day, the classes reported progress. The ice cream was ready a week before the "great day," but that made little difference. Even though the cream was artificial, the spirit was real. The favors made by 2A-1 for 2A-2 were vest-pocket booklets; those made by 2A-2, little peanut birds. For these, each boy made a small brown paper box $1\frac{1}{2}'' \times 1\frac{1}{2}''$, in which he placed several real peanuts. (Two of the teachers contributed the nuts.) A lid to fit was then added. This box was to serve as a stand for the bird. A peanut, colored, with wings and tail of tissue paper, made an unusual little favor. Toothpicks served for legs. By sticking these toothpick legs through the lid of the box, the bird was made to stand erect.

Both classes made hats to wear during the party. These, being original in design, were naturally varied. The overseas, Indian, soldier, and dunce caps were the predominating styles. Decorations for the auditorium were also made, one class making paper chains, the other, Japanese lanterns.

Simultaneous with these activities was the preparation of invitations in the language room. The children decided on the following form:

> Class 2A-1 (or 2A-2)
> invites you to a party in
> Room 723, on March 27, 1923
> at one o'clock

Each teacher received one of these formal invitations, but only three were free at that hour to accept. For them, the boys made crowns of silver paper. In addition to writing the invitations, games, jokes, and riddles were selected in the language room. The riddles were unique in that they were original. Six jokes were told and three games played. Two of the games were guessing ones; the third, "Hunt the Peanut."

Two songs, one by each class, were learned in the music room. Each group planned to sing its song for the other division.

After two weeks of preparation, the day arrived. Joy of anticipation was evident in the boys' faces. At one o'clock, there was no lagging in the hall; the children could scarcely wait until they reached the auditorium. Here they donned the caps, which gave a jolly air to the scene. Then followed the program:

2A-1 — Riddles by 5 boys
2A-2 — Song
2A-1 — Jokes by 6 boys
2A-1 — Song
2A-2, 2A-1 — Games
1. Guessing game
2. Hunt the Peanut
3. Guessing game

Refreshments followed. The artificial ice cream, real cakes, and peanuts were served on paper plates made by the boys. Then came the favors.

The children had a delightful afternoon. The teachers can testify to the fact that "satisfaction" surely followed this project. This type of work tends to oil rather than clog schoolroom machinery. The work goes along more smoothly and, in consequence, a greater amount is achieved. In other words, projects affect both the quantity and the quality of results.

Outcomes.

I. Knowledges:
  A. Arithmetic introduced through the project.
    Fractions $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{1}{6}$, $\frac{1}{12}$, $\frac{2}{3}$.
    Liquid measure.
    Multiplication by 2, 3, 4, 5, 6; carrying.
    Division by 2, 3, 4, 5, 6.
    Addition and subtraction. (Money.)
    Ounces and pounds.
    Cost of foods.
    Use of dollar mark and decimal.
    Reading amounts of money.
    Making bills — finding totals.
  B. Spelling.
    All words used in invitations and in bills.
  C. Writing.
    Writing invitations.
  D. Drawing.
    Circle.
    Rectangle.

II. Habits and skills.
  Use of ruler in exact measurement.
  Habit of attention and of thought strengthened.
  Judging quantities and values.
  Greater skill in the four fundamental operations.

III. Attitudes.
  Desire to give pleasure to others.
  Friendship between teachers and pupils.
  Enjoyment of work through the "party" idea.

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A SUGGESTIVE PROJECT FOR TEACHERS OF THE ELEMENTARY GRADES

In attempting to explain the choice of such subject, it might be well to state that it happens to be one of my particular problems as supervising principal of the elementary grades.

It might be well to state further that in our schools the project method has been received with some enthusiasm by nearly all concerned, school board included. This is due perhaps to our general discussions in the various teachers' meetings.

Many teachers, however, have not understood the significance of the method. Many are inclined to apply the term to most any effort in educational work. This condition is due to the fact that much of the current literature is misleading in its application to the term. Many teachers are led to believe that they have "always used" the project method. Others who believe in its merits, but feel the need of help, have asked that a suggestive project be worked out for them.

With this problem in mind, I am presenting an outline which may be suggestive in its nature. This outline was made in consideration of our locality, an agricultural

and dairying center, as well as of the capacity and interests of the children. Some of the ideas are original, but in the main I have depended upon the readings from the bibliography appended, and from notes on a course which I took during the summer of 1921.

There are many phases not emphasized in this paper which can be brought out in individual conferences with teachers, such as pupil initiative, following of the lead of pupils, taking advantage of chance situations, and the like.

A DAIRY FARM PROJECT

I. Teacher's purpose:
   A. To motivate the various kinds of subject matter by taking advantage of a real life situation.
   B. To lead children to appreciate surroundings and eventually contribute to citizenship.
II. Pupils' purpose:
   A. To gain all possible information about milk in their own town.
   B. To find out about the milk supply of a larger city by corresponding with other school children.
III. Concomitant subjects brought in by free method:
   A. Language and writing.
      (1) Letters to Mr. Whitney (dairyman) asking permission to visit his dairy farm.
      (2) Letters to school children of other cities offering to exchange information on local products for information on the milk supply of that city.
      (3) Outline of story of "Trip to Dairy Farm."
      (4) Story from outline.
      (5) Correlation of language and hygiene.
         a. Care of milk.
         b. Milk as food.
         c. Kinds of milk.
   B. Spelling.
      (1) Words used in work necessary to carry on correspondence.
   C. Geography. (Distribution of cattle.)
      (1) Native heaths of various breeds of cattle represented in this locality.
      (2) Places where various kinds of feed for cattle are found.
      (3) Local geography from visit to farm.
   D. Reading.
      (1) Outside reference work.
      (2) Health bulletins.
      (3) Farm journals.
      (4) Newspapers and magazines.
   E. Industrial arts.
      (1) Making booklets for children of Chicago, in exchange for information on the milk supply of that city.
   F. Arithmetic.
      (1) Denominate numbers including various tables involved in liquid measure.
      (2) Computations involving the amount of milk used by children of different rooms.
      (3) Selling price of milk as compared with the cost of production to determine the profit in running a dairy.
   G. Hygiene and sanitation.
      (1) Milk as a food.
      (2) Care of milk.
      (3) Danger in drinking unclean milk.
      (4) Sanitary conditions of the farm.
         a. The barn.
         b. The milk-house.
         c. Method of milking.
         d. Method of bottling.
         e. Water supply.

TYPES OF ARITHMETIC PROBLEMS

I. Problems on school milk.
   A. Find the cost of Howard School's daily milk supply.
   B. Find the cost of Howard School's weekly supply.
   C. Cost of monthly supply.
   D. Cost of yearly supply.
   E. Weight of supply for each time designated.
   F. Per cent of butter fat in supply.
   G. What per cent of children in entire school drink milk?
   H. What per cent of children of each room drink milk?

II. Problems on dairy farm.
   A. Find dairyman's weekly supply of milk.
   B. Find dairyman's monthly supply.
   C. Find dairyman's yearly supply.
   D. Amount of money received for each supply.
   E. Weight of ice used daily, weekly, monthly, and yearly (expressed in tons and pounds).
   F. Cost of ice upon same basis.
   G. Amount of feed given each cow per week, month, and year.

III. Miscellaneous problems.
   A. Amount of butter fat in various measurements of milk (quarts, gallons, barrels, etc.).
   B. Find the cost of the various measurements of milk at the prevailing price.
   C. At eleven dollars a gross, what will one dozen pint bottles cost?
   D. At thirteen dollars a gross, what will one dozen quart bottles cost?

Note. — This is not to be regarded as a project worked out to a finality and imposed upon teachers or pupils. It is intended merely as a suggestive outline, indicating what can be done, presupposing initiative upon the part of children and coöperation by all. I believe that the general scheme may be used by different schools with modifications to suit their needs.

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AS REPORTED

THE NEXT MEETING OF THE CONFERENCE

The Fourth Annual Meeting of the National Conference on Educational Method will be held in Chicago the last week in February, during the meeting of the Department of Superintendence of the N. E. A. It is expected that one program open to the general public will be arranged, and a second program for members only. All who are interested in the work of the Conference are urged to extend the notice of these sessions.

WORLD COURT WEEK

An urgent call was sent out by the Federal Council of Churches in America for the observance during the week of November 5–10 of the movement for the establishment of a Permanent Court of International Justice. The purpose of this court and its makeup are set forth and its jurisdiction explained. The Call also includes answers to objections to membership in the World Court and sums up the program for a ten-year campaign for a Warless World. Correspondence is invited by the Commission on International Justice and Good Will, which may be addressed at 105 East Twenty-second Street, New York City. Copies of the Call may be had at five cents each.

A GREEK REVIVAL IN ARIZONA

The students of the State Normal School in Tempe, Arizona, made excellent use recently of the associations clustering around the name of the town in which their institution is located. They gave a Greek pageant called "The Vale of Tempe," under the direction of Miss Minnie E. Porter, formerly of Gary, Indiana. The town of Tempe is situated near a river in a peaceful valley with two mountains or buttes nearby, the whole suggesting the far-famed Vale of Tempe in ancient Greece, "a sheltered valley with beautiful sunny skies." The story developed by the students turned upon certain incidents in the life of Apollo and the Pythian contests given in his honor. This story became the thread on which was strung a series of striking pantomimes and dances, the whole being concluded with a chorus processional and a grand pageant of all the players.

A remarkable feature of the pageant was the original verse prepared by Miss Mary Lattin, of which the following is an excerpt:

PROLOGUE

Hermes, *messenger of the gods*

From far-off courts of mighty Zeus I come,
The winged Hermes, breathless from an eager flight,
To bring a gracious message. 'Neath a palm
That lifts on high its swaying sunlight-gilded fronds,
To Zeus and Leto hath been born a son —
A god most fair, and on his spun-gold locks is placed
A crown. To him is given revealing light,
The power to heal, to prophesy; and from
The pipe, or silver stringed lute, to fill
The souls of list'ning mortals with an holy fire;
And he shall with his raptured melodies
Inspire the very Muses, kindred to himself.
A silver bow to him, his father, Zeus,
Shall give, with pow'r thine own beloved land to free
From that dread monster, Python, who hath dwelt
Too long within thy gates upon destruction bent.
Apollo cometh to this Vale. E'en now
The path that shall be followed by his white swan-steeds,
Of arched throats that draw his golden car,
Is sweet with flowers long to mortal gaze denied,
And all that breathes is filled with ecstasy.
Here shall he woo in vain the lovely nymph, and long
Shall linger, where the sacred laurel grows,
With whispered messages and pleas for her return.
Then, let all ye who in this vale do dwell
Lift your glad voices in Apollo's praise.
Behold
How all the earth is made to bloom again
While Tempe with great joy his birth proclaims.

A MODEL REPORT

A model for similar documents will be found in the Eightieth Annual Report of the Detroit Public Schools, prepared by the Superintendent, Mr. Frank Cody. The selection of graphs and illustrations is such that, with a minimum of text, a good idea of the striking features of the school work of the year can be obtained with but little

effort. Salaries of teachers and principals are compared with those found in other cities. The teacher turnover is traced during a period of nine years. A succinct summary of educational policy follows, and all departments are represented by similar graphic accounts. This report is particularly adapted to informing the public about its schools and no doubt has had extensive circulation.

THE READER'S GUIDE

LITERATURE FOR CHILDREN

Journeys Through Bookland, by C. H. Sylvester, was first published in 1909. A new edition from new plates has just been issued.[1] This is indicative of how well the movement to provide good reading for children has held its own. Over a generation ago an awakening as to the possibility of replacing commonplace matter with the works of the masters in school reading books occurred and its influence was soon evident in the publication of "libraries" for home reading which contained several large volumes, well printed and well bound. Generally there was some sort of guide or plan for the reader, or at least the pieces were graded and classified.

Mr. Sylvester gave particular attention to this feature, and in the new edition of the "Journeys" has made improvements. He discusses, for example, "Pictures and Their Use," "Telling Stories," "How to Read Fiction," "Reading Poetry," "Reading Aloud," "Reading in Relation to Language," and "Recitations for Special Days in School." Teachers particularly will find *Volume Ten — The Guide* very valuable in preparing for their classes in reading and literature. Parents, too, would profit if they would join their children in the studies outlined.

The first criterion by which to judge such an anthology as this is, of course, the wisdom of the selection. In this Mr. Sylvester has undoubtedly been very judicious. The pieces he has chosen are good in quality and they are within the reach of children. There is a sufficient variety. If it is objected that nothing written since 1900 or thereabouts has been included, the author might perhaps rejoin that the newer things are sure to be met with anyway.

The demands of space have led the editor to make use of several excerpts. In the case of *Pickwick Papers* this was inevitable. In that of *Julius Caesar* the result is questionable. True the prose story is there, but after all Shakespeare's *Julius Caesar* is the thing. If what is in the book entices the reader to hunt up the play and get it all, well and good. Sometimes it will.

Our author avoids the blunder of labeling pieces as specially for boys or for girls. Few books in our day need be so distinguished. Coeducation has done its work. He is to be commended also for recognizing that a collection of reading matter for children should not be confined to *belles lettres*. Well-written biography, history, science, and travel should occupy as large a place in one's general reading as fiction and poetry — probably a much larger place. He has, moreover, yielded no more than was to be expected to the temptation to treat of literary technique. His notes are numerous and helpful.

[1] Bellows-Reeve Co., Chicago, Ill. Sold by subscription.

SIGNIFICANT ARTICLES

STANDARDS FOR READING MATERIAL

The derivation of standards for judging reading material is discussed in an informing article by Professor W. L. Uhl, of the University of Wisconsin, in the October number of the *Educational Review*. The writer bases his analysis upon the objectives of reading and literature courses. These he conceives to be, first, the mastery of the mechanics of reading; second, the development of ability in comprehension and interpretation of what is read; and third, the development of general culture. Data are submitted which were gathered from questionnaires addressed to teachers in the schools and to pupils. These seem to indicate that there is a great discrepancy between the aims of those who write about literary achievements and the actual attainments of classes in reading and literature. We are now able, the writer thinks, to set up tentative standards for judging content.

SCHOOLROOM HOUSEKEEPING

A suggestive outline for the guidance of teachers in the care of their schoolrooms is to be found in the *Journal of Education* for September 20, from the pen of Miss Sara E. Chase, Principal of the Kensington School, Springfield, Massachusetts. The principle criteria which she sets up are the following: suitability, simplicity, harmony, and orderliness. Each of these is supported with a series of specific suggestions. The whole outline will provide a valuable check list for teachers, and might well be made the basis of projects in housekeeping by the pupils.

BOOKS FOR HOME READING

The *Bulletin of the Illinois Association of Teachers of English* for October contains an excellent list of home reading for pupils in high school. Fiction is classified into two groups: one for the first two years and one for the remainder of the high school course. The other types of literature are arranged in single groups. A striking feature of the list is the insertion of the publisher and current price after each title. The authors explain that they have had in mind small libraries, that they have avoided the whole system of credits and weights for outside reading, and have omitted authors like Wharton, Hardy, Meredith, and Conrad, which call for maturity and discrimination. The editors of the list are Miss Essie Chamberlain and Miss Bertha Carter, of the Township High School in Oak Park, Illinois.

THE VOCABULARIES OF TEXTBOOKS

So little scientific work has been done upon the content of textbooks that unusual interest attaches to an account of "A Method for Measuring the 'Vocabulary Burden' of Textbooks," prepared by Miss Bertha A. Lively and Professor S. L. Pressey, of Ohio State University, and published in *Educational Administration and Supervision* for October. The questions which were before the investigators in the elaboration of their procedure were these: (1) How many words must be included in any sampling from a textbook in order to obtain a reliable indication regarding vocabulary, and how should these words be selected? (2) How can the difficulty of the words in this sampling be best measured? The unit used was a thousand words obtained by systematic sampling. Results show graphically the range of vocabularies in selected books such as school readers, texts in American history, and the like. The authors believe that the procedure is applicable to educational material in general.

MISCORRECTING ENGLISH PAPERS

Professor S. A. Leonard of the University of Wisconsin shows graphically in the *English Journal* for October how seriously

teachers go wrong in the correction of papers in English. The gist of the matter is that teachers are prone to overlook actual mistakes and to change expressions which are in perfectly good use. Some examples of purism are changing *even if* to *even though*, *so* to *thereupon*, *till* to *until*, and *for* to *because*. The author's tables are based upon somewhat extensive studies and are therefore significant. His findings deserve a wide study.

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